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UVD-IP-EVRDNR(-P) Camera User Manual

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Certification	
FCC compliance	<p>Class A: This equipment has been tested and found to comply with the limits for a Class A digital device, pursuant to part 15 of the FCC Rules. These limits are designed to provide reasonable protection against harmful interference when the equipment is operated in a commercial environment. This equipment generates, uses, and can radiate radio frequency energy and, if not installed and used in accordance with the instruction manual, may cause harmful interference to radio communications. Operation of this equipment in a residential area is likely to cause harmful interference in which case the user will be required to correct the interference at his own expense.</p>
European Union directives	<p>1999/5/EC (R&TTE directive): Hereby, UTC Fire & Security declares that this device is in compliance with the essential requirements and other relevant provisions of Directive 1999/5/EC.</p>



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Introduction	6
Product description	6
Features	6
User guidelines	7
Package contents	7
Installation	8
Viewing the camera via a digital (IP) connection	8
Software requirements	8
Connecting analog cables	10
Installing the camera	10
Angle adjustment	10
Zoom and focus adjustment	11
Connecting an analog monitor to set camera functions	12
Setting camera functions	12
White balance (WB)	12
Backlight compensation (BLC)	13
AI/AE exposure	13
Day/Night	13
Mirror	13
Flickerless control	13
Contacting Technical Support	14

Introduction

This user manual provides basic information on setting up and using the UVD-IP-EVRDNR(-P) camera.

Product description

The UVD-IP-EVRDNR(-P) color video camera uses a digital signal processor (DSP) to process video signals. The video camera includes a microcontroller to provide high-quality images with high-color reproduction and sharp pictures

Features

Camera features include:

- H.264-SVC video compression with multistream capability.
- Super HAD (hole accumulated diode) technology with 470,000 PAL (410,000 pixels NTSC).
- Use of LSI (large scale integration) digital processors to produce 540 lines of horizontal resolution.
- High-resolution picture production using digital signal processors for horizontal and vertical aperture enhancement.
- Smart digital automatic BLC (back light control).
- Advanced autoexposure system to optimize the amount of light to the imager.
- Internal or line lock external synchronization.
- Long life and high reliability.
- DIP switch control of camera settings.
- Signal-to-noise ratio better than 48 dB.
- Power over Ethernet (PoE) or Isolated switching power 12 VDC or 24 VAC.

User guidelines

Use the following guidelines:

- Take appropriate safety precautions while completing programming after installation.
- Always use a proper PoE switch or a 12 VDC or 24 VAC UL listed Class 2 power supply to power the camera.
- Do not use the camera outside the temperature range specifications: -30 to +50°C (-22 to +122°F)
- If the light source where the camera is installed experiences rapid, wide-variations in lighting, the camera may not operate as intended.

WARNING: To reduce the risk of fire or electronic shock, do not expose the camera to rain or moisture and do not remove the cover or back.

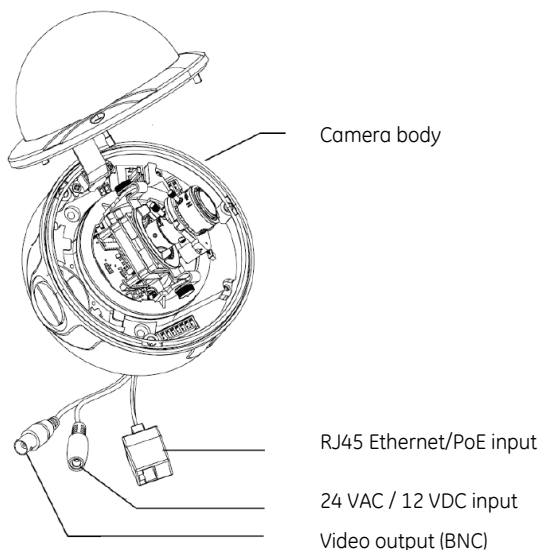
Package contents

The UVD-IP-EVRDNR camera is shipped with the following items:

- The camera assembly
- 1 channel passive video transceiver
- AC power wiring harness
- Mounting screws, wall anchors, and hex key
- 150 mm DC jack to terminal adapter

Use the video output BNC and power jack for normal system operation.

Figure 1: Camera assembly



Installation

To install the camera you will need to prepare the mounting surface, make cable connections, and mount the camera.

Viewing the camera via a digital (IP) connection

You can connect the IP camera to a network and view the images through a browser. To view via a Network Video Recorder or similar digital video system, please refer to the documentation associated with that system.

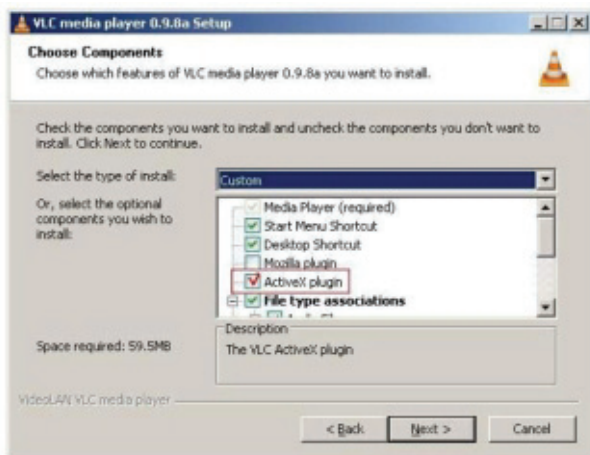
Software requirements

The UVD-IP camera requires:

- Microsoft Internet Explorer

- A VLC player ActiveX plug-in is required to play video when Internet Explorer is used to monitor the camera.

Figure 2: ActiveX plug-in option



To configure the camera:

1. Configure the UVD-IP camera with a default IP address: 10.1.2.11
2. Configure your host PC/laptop within the same subnet, ex: 10.1.2.10
3. Connect the URL <http://10.1.2.11> with Internet Explorer.
4. Select the "Live" menu to view live video.
5. Enter the following username and password to access the Maintenance menu.

Login: *admin*

Password: *admin*

The IP address of the camera can be changed from the Maintenance menu. Reboot the camera for the changes to take effect.

Connecting analog cables

To connect the cables:

1. Connect a coaxial cable from the camera's BNC connector to a CCTV monitor or video recording device.
2. Connect a PoE switch, a 12 VDC or 24 VAC power supply to the power input. Do not connect both the PoE connection and DC or AC connection at the same time. The label on the camera gives the following information:

Red cable. Power in.

Black cable. Power in.

White cable. Video out.

Black cable. Video ground.

Note: For 24 VAC or 12 VDC, Black or Red may be used for ground.

Installing the camera

To mount the camera, attach the camera to the mounting surface using the appropriate fasteners.

Angle adjustment

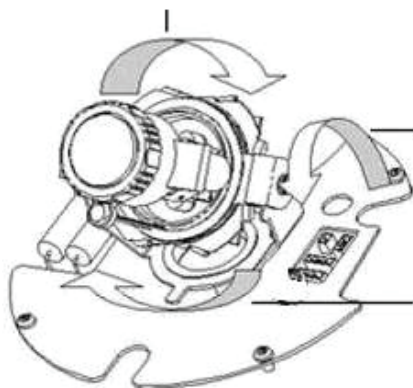
To adjust the horizontal angle of the platform up to 180 degrees, turn the platform (Figure 3 on page 11).

To adjust the horizontal angle of the rotor up to 350 degrees, turn the rotor on the platform (Figure 3 on page 11).

To adjust the vertical angle of the platform up to 90 degrees, turn the platform (Figure 3 on page 11).

Figure 3: Camera adjustment

Platform horizontal adjustment



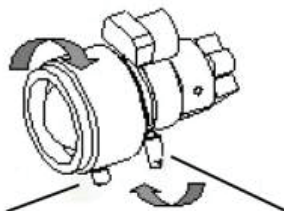
Platform vertical
adjustment

Rotor horizontal
adjustment

Zoom and focus adjustment

See Figure 4 below for the location of the zoom and focus ring thumbscrews.

Figure 4: Zoom and focus adjustment



Zoom ring thumbscrew for
VA2 and focus ring for
VA9 lens

Focus ring thumbscrew for
VA2 and zooming ring for
VA9 lens

To adjust the camera zoom and focus:

1. Loosen the zoom ring thumbscrew.
2. Turn the zoom ring to set the desired zoom.
3. Tighten the zoom ring thumbscrew.
4. Loosen the focus ring thumbscrew.
5. Turn the focus ring to set the desired focus.
6. Tighten the focus ring thumbscrew.

Connecting an analog monitor to set camera functions

Connect a standard video monitor to the system to adjust the quality of the video image using the DIP switches. The DIP switches can also be adjusted when connected to the IP system.

To connect a video monitor:

1. Plug the monitor output cable to the video monitor output connector (see Figure 1 on page 8).
2. Connect the BNC cable to the video monitor.
3. Adjust the DIP switches as desired.

Setting camera functions

You can set up six camera functions using the DIP switch bank on the back of the camera. Figure 5 on page 14 shows the DIP switch layout.

White balance (WB)

White balance tells the camera what the color white looks like. Based on this information, the camera will then display all colors correctly.

There are two methods to determine the WB:

- **ATW** (auto tracking white balance). The value used depends on the lighting condition selected. It ensures reliable color reproduction when lighting conditions change frequently.

- **PTL** (push-to-lock) white balance. WB is fixed at the moment the DIP switch is set to ON.

Backlight compensation (BLC)

The backlight compensation function improves image quality when the background illumination is high. It prevents the object in the center from appearing too dark.

AI/AE exposure

Use this setting to select the method the camera uses to adjust to different light levels. Use the Automatic Iris (AI) setting to fix the iris value at F1.6. Use Auto Exposure (AE) setting to automatically set the proper exposure according to the existing light conditions.

Day/Night

This function controls if the camera switches to day/night mode. The camera produces high-quality color video during the day or when light levels are high. It then switches monochrome and removes the infrared filter to improve IR sensitivity at night or when light levels are low. There is an option to force the camera to stay in color mode and not go into monochrome mode no matter the light level.

Mirror

Use this function to change the original image into a mirror image (horizontal).

Flickerless control

Flickerless control eliminates the flicker caused by the differences between the frequencies (60 Hz) of the ionization of the gas in a fluorescent light bulb with that of the vertical frequency (59.95 Hz) in the camera. Although the difference is very small, it results in a slight flicker at the top of the monitor scene or, in video over IP applications, it would be interpreted as motion. Flickerless control helps reduce the file size and transfer bit rates of compressed video images.

Figure 5: DIP switch layout (back of camera)

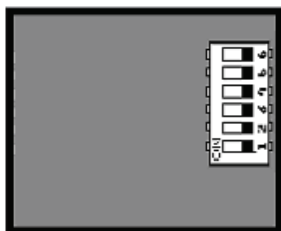


Table 1: DIP switch functions (Default ON)

Switch	Description
1.	White Balance ON: ATW mode; OFF: PTL mode
2.	Backlight Compensation ON: BLC off; OFF: BLC on
3.	Exposure AI/AE ON: Auto Iris (AI) mode; OFF: Auto Exposure (AE) mode
4.	Day/Night setting ON: Auto Day/Night mode; OFF: Color mode only
5.	Mirror ON: Normal; OFF: Mirror Enable
6.	Flickerless Control ON: Normal; OFF: Flickerless enabled

Contacting Technical Support

For assistance installing, operating, maintaining, and troubleshooting this product, refer to this document and any other documentation provided. If you still have questions, you may contact technical support

during normal business hours (Monday through Friday, excluding holidays, between 5 a.m. and 5 p.m. Pacific Time).

Note: Be ready at the equipment before calling.

Table 2: Technical Support

North America	Latin America
<p>T: 888.437.3287 Toll-free in the US, Puerto Rico, and Canada. +1.503.885.5700 outside the toll-free area.</p> <p>F: 888.329.0332 (Tualatin tech support) 561.998.6232 (Boca Raton tech support)</p> <p>E: nstechsrv@ge.com gesecurity.customerservice@ge.com</p>	<p>T: +1.305.593.4301</p> <p>F: +1.305.593.4300</p> <p>E: InfraSec.TechnicalServicesLatinAmerica@ge.com InfraSecCustomerService.LatinAmerica@ge.com</p>
Australia, New Zealand	Europe, Middle East, and Africa
<p>E: techsupport@gesecurity.com.au</p>	<p>T: + 48 (58) 326 2240</p> <p>F: + 48 (58) 326 2241</p> <p>E: support-es-emea@ge.com</p> <p>W: At www.gesecurity.eu, select <i>Customer Support</i>.</p>
China, India, Singapore, Taiwan, Southeast Asia	
E: ges.asiatechservice@ge.com	

